be kept in mind, the question of pemphigus will seldom arise in diagnosis. It is altogether unreasonable and irrational to hold, as some observers have done, that dermatitis herpetiformis bullosa is merely a pemphigus. If such observers will closely observe and follow the process of the evolution to its termination, and, further, if they would note the relapses and recurrences which so commonly take place, they would not be so likely to confound these diseases.

Conclusions. The conclusions I would arrive at, briefly expressed, are:

1. That dermatitis herpetiformis is in most instances a disease with well-defined, tolerably constant clinical features which enable it to be distinguished from other cutaneous diseases.

2. That it is in most instances more closely allied to erythema multiforme than to any other generally recognized disease.

3. That one variety, the bullous, possesses features which resemble those of pemphigus vulgaris, from which disease, however, it differs in the peculiar inflammatory and herpetiform character of the cutaneous lesions, as well as in the tendency to polymorphism, the irregular evolution of the lesions, and in its course.

A CASE OF THORACIC ANEURISM.[1]

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Lizzie B., colored, aged thirty-five years, married, no children, was admitted to the Howard Hospital September 4, 1894, on account of a painful swelling of the left sterno-clavicular articulation. Her family history was negative, but she gave a clear history of syphilis, contracted when she was eighteen years old, and for which she was under treatment for over a year. Since then she enjoyed fairly good health until about three months previous to her admission. During this time she suffered with severe headaches and increasing dull, boring, and neuralgic pain above the left clavicle and down the left arm and at the left sterno-clavicular articulation. Here a swelling made its appearance. These symptoms became so aggravated during the week previous to her admission that she was unable to sleep, and on account of dyspnœa she could not lie down. She was of medium height, poorly nourished, and decidedly debilitated. The swelling was about the size of an English walnut, situated a little below and over the left sterno-clavicular articulation. It was painful on slight pressure and gave the impression of containing fluid, especially on the upper surface. No pulsation was at this time perceptible. Its base was hard and indurated. The overlying skin was unaltered in appearance. The positive history of syphilis, together with the rapid growth, the pain and indistinct fluctuation, and the situation of the swelling, suggested gumma, and she was therefore admitted to the surgical ward. Upon the following day, however, while prepared to incise, curette, and pack in the usual way, and while speaking of the importance of making a positive differential diagnosis between aneurism and other growths in this situation, I was startled by detecting a faint impulse on the apex of the swelling, synchronous with the pulsation of the heart. There was no bruit, murmur, or thud, and, beyond the faint impulse, no sign of aneurism. Examination of the heart showed no evidence of valvular disease. The radial pulses were full, regular, and even, and not atheromatous. Enough counter-indication to incision had been found, and the patient was treated expectantly for some days. Absolute rest in bed was enjoined, with medium diet and gentle purgation. While the tumor gradually increased in size the patient's general condition seemed to improve. Her headaches and local pain became less severe, and she expressed herself as feeling well enough to go home. On September 15th, eleven days after her admission to the hospital, a plaster cast was made (Fig. 1), and the following notes of her condition were taken:

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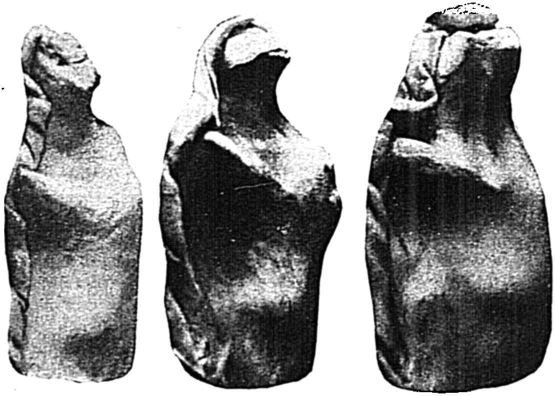
[1] Read before the College of Physicians of Philadelphia, May 6, 1896.

FIG. 1. FIG. 2. FIG. 3.



September 15, 1891. September 30, 1891. October 30, 1891.

Plaster-of-Paris casts in profile.

Inspection. A rounded lobular swelling, situated in the region of the left sterno-clavicular articulation, extending over the median line to the right of the manubrium. It is about the size of a lemon, and fills up the suprasternal notch. It measures two and one-half inches in breadth by three inches in length. The clavicle is slightly elevated above its plane, and the whole left side of the chest is prominent. The tumor pulsates most markedly over the main prominence, and the pulsation is slightly expansile in character and synchronous with the heart-beat. The right external jugular vein is enlarged and pulsates, and a branch of the left jugular coursing over the tumor is also enlarged and pulsates.

Palpation. The most prominent part of the tumor is covered only by skin and fascia, the bony structures having been absorbed, and a portion of the growth may be compressed and pushed back into the crater-like opening. Feeble diastolic shock is felt over the tumor. Expansile pulsation cannot be determined. There is no thrill, but the whole præcordia pulsates. The apex-beat is very much accentuated and felt in the left anterior axillary line in the sixth interspace.

Auscultation. A faint bruit is heard immediately under the *right* sterno-clavicular articulation and not over the tumor. This bruit is accentuated on forced inspiration and disappears on forced expiration. All cardiac sounds are accentuated, and there is good closure of both mitral and aorotic valves.

Percussion. With the exception of a small spot of impaired resonance one inch in diameter, immediately to left of sternum and two inches below the apex of the swelling, the tumor-dulness merges into that of the heart. Dulness does not extend beyond the right border of the sternum, except at the manubrium. There is pain over the spine of the scapula on percussion, with general soreness over the whole of the left shoulder. There is a good pulmonary resonance right and left posteriorly, but the respiratory sounds are weak on the left side; no râles.

The urine was examined and found normal.

It became evident that we were dealing with a saccular aneurism, arising probably from the ascending or transverse portion of the arch of the aorta, with erosion through the left sterno-clavicular articulation and a portion of the manubrium, and that it had developed in such a manner as not to involve the vagus or recurrent laryngeal nerves.

The absence of many of the physical signs of aneurism, which continued to be a marked feature of this case, made it one of unusual interest. The pupils were equal, and responded normally to light. Dr. E. L. Vansant kindly made a laryngological examination and reported the larynx and vocal cords normal. Digestion seemed undisturbed, and there were no gastric symptoms. There was no thrill, and the expansile nature of the pulsation was not well marked. The bruit heard over the second right costal cartilage could not be referred to the sac of the aneurism, since it could not be heard over the tumor. The rapidity of growth, and the danger of rupture indicated by the thinness of the tissues over the most prominent portion of the tumor, brought up the question of operative procedure. The advisability of electrolysis with a watch-spring was considered, but was abandoned as a *dernier ressort.*

The following treatment was ordered: absolute rest in bed; potassium iodide grains 5 three times daily; venesection, six or eight ounces every three days; low diet. The patient was not bled for two days, during which time severe pain in the shoulder and left arm developed. On the third day, September 18th, she was bled eight ounces from the external saphenous vein at the ankle, with great relief of this distressing symptom. Between September 18th and 30th she was bled four times, chiefly for the relief of pain, and each time with marked success. On the 30th, fifteen days later, a second cast (Fig. 2) was made, and the following note of her condition was taken:

Tumor: since last examination the tumor has equally enlarged. It has extended upward on the neck, and there is now a well-defined sulcus separating it into parts. The right external jugular vein is dilated and larger than when first examined. The tumor is the seat of distinct heaving, in which the thoracic wall shares. This heaving is synchronous with systole and is more marked with expiration.

Palpation. Expansile pulsation is quite evident. The diastolic shock is better felt than at previous examinations. There is no thrill. Pulsation greatly increased during forced inspiration.

Auscultation. At point of contact of first rib with the right edge of sternum there is during quiet breathing a harsh and rather long systolic murmur, which is inaudible during forced, held inspiration and expiration. This murmur is probably not aneurismal, but might be due to pressure on the pulmonary artery. No murmur is heard in either carotid.

Percussion. Tumor gives dulness. Below the tumor there is resonance in the left second interspace; third rib, flatness; third interspace, dulness extending to the fifth rib, through which gastric tympany may be obtained.

Heart. Apex-beat visible in sixth interspace, and the point of maximum intensity is one inch to the right of the anterior axillary line, extending in the interspace for a distance of three inches. It is diffuse, regular, and unaccompanied by thrill.

Right border of heart-dulness corresponds to right border of sternum; left border corresponds to a line drawn just without the anterior axillary line.

Auscultation of apex. First sound is long, but not so muscular as one would expect from size of heart. There is no murmur.

The second sound is well heard in the tricuspid and aortic regions, and is obscure in character. No murmur is heard in these regions other than that described under head of tumor.

Auscultation at angle of the left scapular gives loud heart-sounds, but otherwise is negative. Respiratory murmur over right base posteriorly is well heard. Over left base the breath-sounds are weak and feeble, and when a forced inspiration is taken numerous liquid râles are heard. The respiratory murmur of left side is weaker than on the right side. The left lung seems to be compressed posteriorly and downward.

It was now evident that the aneurism was steadily increasing in size, and the prognosis became very grave. The tissues overlying the tumor were so thin that rupture seemed imminent. The sulcus across the apex of the swelling was probably due to a part of the sterno-clavicular ligament which had not been absorbed. Full doses of potassium iodide with mercurial inunctions were ordered with liquid diet, bleeding as necessary for pain, and absolute rest in bed.

In ten days she was taking fifty grains of potassium iodide, and one drachm of mercurial ointment was rubbed in over abdomen, chest, and arms daily. A marvellous change took place. The tumor steadily decreased in size, and the patient's general condition improved daily. Once she became slightly salivated, and the mercurial was omitted for a few days. It was also found necessary to reduce the iodide to twenty-five grains daily on account of an acne. When she left the hospital, one month after this treatment had been started, a third cast was made, which clearly shows the very marked diminution in the size of the tumor. (Fig. 3.) Two weeks later, November 15, 1894, Dr. Judson Daland kindly assisted me in making the following notes of her physical condition:

Upon inspection it is found that the tumor has diminished about two-thirds in size, and the impulse is correspondingly decreased. The appearance of the superior portion of the chest in front is also materially altered, the most prominent point at present being situated immediately below the left sterno-clavicular articulation, which is sacculated, feeling like an exostosis from the manubrium, and is not painful to pressure. Immediately below this bony prominence a distinct pulsation may be felt, very like the apex-beat of a heart unaccompanied by thrill. The area would be described by a circle having a diameter of half an inch. The entire upper portion of the sternum is still bowed outward. At a point corresponding to the right edge of the sternum, on a level with the first and second ribs, a faint pulsation is felt, which becomes stronger as the mid-sternal region is approached, and is strongest in the fourth interspace, half an inch to the left of the left border of the sternum. Over this region a diastolic as well as a systolic shock can be felt, synchronous with the heart's action, but no thrill. It can be felt outward as far as the left mid-clavicular line. The apex-beat is diffused, violent, strong, and is felt in the seventh interspace in the anterior axillary line. The beat feels as though the heart struck the finger directly, and there is no thrill.

Percussion. A limited area of pulsation, immediately below the prominence and downward for a distance of one and a half inches, is flat, below which there is no impairment of the percussion-note for half an inch, and then comes normal sternal resonance. The right half of the manubrium is dull on percussion. In the left sterno-clavicular region there is marked dulness extending down to the second rib, at which point there is a small area of resonance. Below that there is a flatness extending down to the fifth rib. This whole area is within the left mid-clavicular line. There is resonance to the right of the sternum, excepting in the manubrial region, where normal pulmonary resonance is not met until the parasternal line is reached. In the ensiform region there is impaired resonance continuous with the dulness immediately to the left. The lower limit of this area is marked by the seventh rib.

Above the clavicle and sternum the tumor bulges into the left side of the suprasternal notch, lying under the sternal tendon of the left sterno-cleido-mastoid. It bulges slightly over the level of the clavicle and sternum. By pressing the finger in this region back toward the cervical vertebræ one feels a ledge for a distance of one full inch, which is without pulsation, painful to pressure, and feels hard.

Auscultation. In the first interspace at the right edge of the sternum the heart-sounds are heard with great distinctness. On long inspiration there is a distinct systolic murmur audible. In quiet breathing certain of the heart-beats are entirely without a murmur, and the murmur is best heard at the beginning of the expiration.

Directly over the swelling a blowing murmur is heard with systole during inspiration, but during expiration the heart-sounds are clear. This is the first time any murmur was heard over the swelling, and it is doubtless of aneurismal origin. The second sound is rather sharp. Over the pulmonic cartilage the second sound is accentuated and somewhat ringing; no murmur. The heart-sounds are better heard below the manubrium, and at the ensiform both first and second sounds are heard equally well, the second sound being especially accentuated, but no murmur is audible.

The above examinations were all made in the standing posture.

When sitting, auscultation over the aortic cartilage reveals rather feeble heart-sounds and a faint systolic murmur. Over the swelling a distinct blowing, rather harsh systolic murmur is audible, coincident with each systole of the heart. The second sound is heard immediately thereafter, and is clear over the pulmonic cartilage. The systolic murmur at the aortic cartilage has a slightly higher pitch than that over the swelling. As the stethoscope is carried downward on the left to the third interspace near the sternum the systolic murmur is best heard. Over the apex-beat no distinct systolic murmur is audible, but there is a grating sound like that produced in hearts that are hypertrophied or dilated. Over the third interspace, in the left parasternal line, there is a distinct blowing, wavy, systolic murmur, differing markedly in quality and intensity from that heard over the swelling. There is no murmur in the carotids.

From these auscultatory signs it would appear that the systolic murmur heard over the swelling is of aneurismal origin because of location, quality, and want of distribution of the carotids. Further, the systolic murmur of different quality heard in the third interspace in the left parasternal line, having a wavy character, is probably due to compression of the pulmonary artery, as the tricuspid and mitral areas are free from murmur. The origin of the murmur heard at the aortic cartilage is doubtful. In the scapular region, near the inferior angle, a distinct systolic murmur is audible. In the axillary region no murmur is audible.

There is no difference in the radial pulses as regards rhythm or volume. The left is rather deeply situated and is hard to feel. The right is more superficial and is markedly thickened.

After leaving the hospital the patient led a quiet life, and took bichloride of mercury, one-twenty-fourth of a grain, and potassium iodide, gr. xx, three times daily.

This treatment was faithfully followed, with no marked change in her general condition or in the size of the swelling during the winter and spring and early summer of 1894. In August, however, thinking that she was cured, she gave up treatment, and October 15, 1895, she returned to the hospital for relief of distressing symptoms.

The swelling had increased considerably in size, and was very painful. She suffered much with headache, pain in left shoulder and arm, aggravated dyspepsia, a metallic, barking cough, and on two occasions during paroxysms of coughing she brought up a mouthful of bloody expectoration. At this time no marked changes were noted in the physical signs. She would not consent to remain in the hospital, so she was placed upon the old mixture of bichloride of mercury, one-twenty-fourth of a grain, and potassium iodide, gr. xx, three times daily.

She improved slightly under treatment until November 16th, when she was again admitted to the ward, suffering intense pain over left side of neck and left shoulder, radiating down the arm. The tumor was about the size of a small lemon, rounded, somewhat sacculated, firm, and tense, giving expansile pulsation, and painful on firm pressure.

She was bled on the 17th, 21st, and 28th, eight ounces each time, with marked relief of pain. At the same time one drachm of mercurial ointment was rubbed in the abdomen, arms, and legs, and she was given sixty grains of potassium iodide daily.

The tumor increased in size, and on December 4, 1895, her condition was as follows: the tumor is a rounded, globular swelling about the size of an orange, measuring three and one-fourth inches in all directions over its surface. It bulges above the clavicle, which is raised above its plane, and it fills up the suprasternal and supraclavicular fossæ. It is less firm and tense than at last examination and gives expansile pulsation.

The left shoulder droops, and there are general pain and tenderness on pressure.

The area of flatness may be described by a line drawn from the middle of the left clavicle to the fifth rib just above the nipple, from here horizontally to the mid-sternal line, then to the base of the tumor, and around it to the right sterno-clavicular articulation. Below the tumor this flatness merges into cardiac dulness, which extends to the left anterior axillary line as far as the seventh rib. Here the apex-beat can be seen and felt strongly pulsating. The first sound is long and muscular, unaccompanied by murmur. A decided bruit can be heard all over the area of the tumor-flatness, and there is faint diastolic shock. A short medium-pitched systolic murmur is heard to the right of the sternum at the second costal cartilage. This murmur is transmitted into the right carotid. The second sound is sharp and accentuated.

Bronchial breathing with rough, moist râles is heard under the outer half of left clavicle down to third rib. Posteriorly there is general broncho-vesicular breathing with moist râles on left side.

On right side posteriorly and anteriorly the breath-sounds are more pronounced, somewhat rough, but unaccompanied by râles.

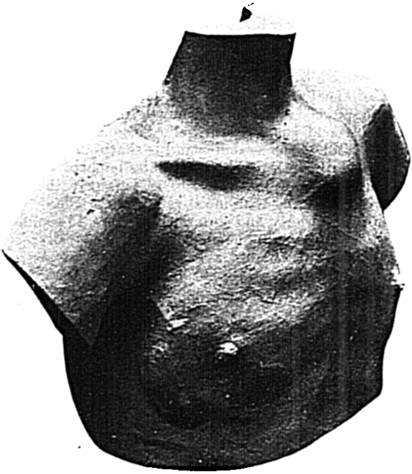
Conclusion: a large saccular aneurism, its upper portion having eroded the bony structure. The left lung is compressed posteriorly and laterally, and the heart is pushed down and out. The aneurism probably arises from the ascending or transverse portion of the arch.

The patient improved steadily under treatment, and on December 24th was discharged in a comfortable condition. The tumor became firm and slightly smaller. The pain had ceased in the neck, arm, and shoulder.

In spite of warning she undertook housework, and January 15, 1896, she again returned to the hospital on account of pain. At this time another plaster cast was made. (Fig. 4.) She improved under treatment, and left the hospital at the end of ten days. She then reported weekly, and continued to do well until April 7th at 4 A.M., when she suddenly developed agonizing pain under the left axilla, which increased in severity during the day, requiring one and a quarter grains of morphine with atropine for relief. There were nausea and vomiting with painful cough. The breathing was labored and rapid. Temperature was normal. Pulse 112. Respiration 36. The physical signs could not be differentiated owing to the loud breathing. I suspected an acute pleurisy or else a sudden dissection of the arterial walls involved in the aneurism and consequent increase in the size of the tumor. The chief pain was situated in the *right* axillary region. She was bled twelve ounces, and morphine and atropine were given subcutaneously for relief of pain, and the next day, April 8th, she was again sent to the hospital, and the following notes were made of her condition:

April 8, 1896. Breathing stertorous, labored, frequent, averaging 26, and frequently interrupted by a loud ringing cough. Tumor over upper portion of sternum is the size of large orange and is more than a hemisphere. During cough it becomes tenser and larger. Impossible to judge of cyanosis. Matrix of nails is normal. In sitting position with the head bent downward the chin rests upon the tumor. There is marked pulsation, which upon palpation feels like the heart. The diastolic shock is marked. Expansile pulsation is well felt. The wall of the sac is made up of skin, fascia, and connective tissue, and has an apparent thickness of a quarter-inch. The thickest portion is in the centre. Anteriorly there is no thrill.

FIG. 4.



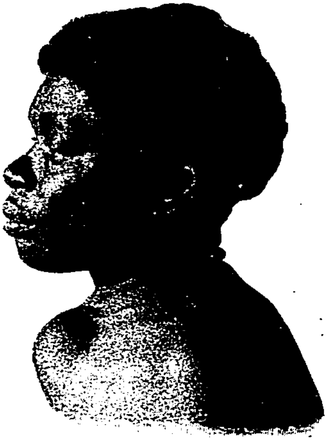
Plaster cast made January 17, 1896.

Auscultation. Over central portion of tumor is a strong, low-pitched, systolic murmur mixed with the cardiac first sound. Second sound accentuated. A systolic murmur of different quality and of higher pitch is heard below the tumor to left of sternum. A murmur is heard in the left carotid. No aortic diastolic murmur is here audible. At ensiform there is a murmurish sound of diastolic time. The apex is plainly felt as low as sixth rib outside of nipple-line, occupying an area of two inches in diameter. It is forceful, and indicates that the heart is closely applied to chest. No thrill, no murmur, but the muscular element of the sound is increased.

Pupils symmetrically contracted, *probably due to morphine.* Pulses irregular in time, and the right pulse much smaller in volume than the left. At times the pulses are synchronous and again are not synchronous.

Lungs. Impaired resonance over both bases. The air enters both lower lobes with the same degree of power. The breath-sound is harsh, unaccompanied by râles, and there are no friction-râles. Occasionally a large rhonchus is heard apparently from a compressed trachea or one of its branches. A prolonged, loud, harsh murmur is heard midway between the border of the scapula and the spinous process of the vertebra on the *right* side, and extends from the fifth to the twelfth dorsal vertebral spines. During quiet breathing but little air enters either base.

FIG. 5.



Photograph taken April 11, 1894.
Note the collar of flesh, the drooping shoulder, and the forward position of the clavicle.

Over the left scapulary region there are signs of compressed lung, and the heart-sounds are plainly audible. Dr. A. W. Watson kindly made a laryngological examination and reported that he found the vocal cords normal. There is a slight deviation of the trachea to the right.

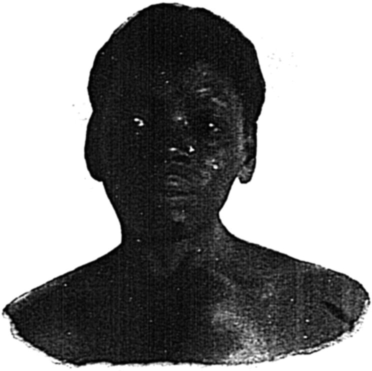
Treatment ordered: mercurial inunctions and iodide of potassium.

Two days later, April 10th, she was bled six ounces, for pain, at 8 A.M.

At 1 P.M. on the same day a violent attack of dyspnœa came on very suddenly, with sharp pain in right axillary region. The patient was deeply cyanosed, and she seemed about to die of asphyxia. A vein was immediately opened and twenty-eight ounces of blood drawn. During the bleeding the cyanosis disappeared, breathing became easy, and pain subsided. The tumor, which had been firm and unyielding, became flaccid, and patient rested easily. Later in the afternoon she slept for two hours. On the following day, April 11, 1896, the photographs were taken. (Figs. 5 and 6.)

May 12th. The patient has steadily improved under treatment, and, in spite of frequent venesections for the relief of slight attacks of dyspnœa and pain, she is gaining strength. She is now able to be out of bed and walk about the ward for a few hours daily. The inunctions were pushed to salivation and then stopped. The potassium iodide has been gradually diminished until, on the 5th of May, she was taking none at all. At this time a tonic pill of iron, quinine, and strychnine was ordered. Her appetite is good, bowels regular, and all functions normal.

FIG. 6.



Photograph taken April 11, 1896.

The wall of the sac seems to be firm and elastic, and about from one-half to one-quarter of an inch in thickness. The walls seem to be of uniform thickness. There is no point of marked thinning indicating danger of rupture externally.

The sac has not changed in size or appearance, but the walls have become firmer and thicker under treatment. Frequent examinations of the urine have been made during the progress of the case with negative results.

The aneurism is undoubtedly a large one, and the fact that such extensive erosion has taken place, allowing protrusion of so large a part of it, accounts in some measure for the absence of many pressure-symptoms, and, therefore, absence of pain. Pepper (*American Text-book of* *the Theory and Practice of Medicine*) cites two cases illustrating this point—one in which an aneurism of the ascending arch had eroded the sternum, appearing externally as a large tumor, and finally rupturing externally without having caused any decided subjective symptoms excepting dyspnœa; another in which the tumor had reached such a size as to cause dulness over a large part of the thorax to the right of the sternum without causing pain.

The question of the location of the aneurism is interesting. An aneurism of the ascending arch causes erosion to the right of the sternum. In this case the erosion is of the left sterno-clavicular articulation and contiguous structures. The physical signs show that the larger part of the sac is within the thorax and to the left of the sternum. The fact that so many pressure-symptoms have been and remain absent argues against the view that it is an aneurism of the transverse arch, because, owing to the small space between the sternum and the spinal column, tumors in this region usually give rise to severe pain and other symptoms of pressure. One would expect an aneurism of the descending arch to develop posteriorly.

Occasionally small aneurismal dilatations of the sinuses of Valsalva have been noted, and Bramwell has reported one case in which a large aneurism had its origin at this point.

Gray thus describes the sinuses of Valsalva: " Between the semilunar valves and the commencement of the pulmonary artery are two pouches or dilatations, one behind each valve. These are the pulmonary sinuses (*sinuses of Valsalva*). Similar sinuses exist between the semilunar valves and the commencement of the aorta; they are larger than the pulmonary sinuses. The pulmonary valves are situated behind the junction of the left third rib with the sternum."

It has occurred to the writer that this aneurism may arise from one of the pulmonary sinuses of Valsalva. This might account for many of the peculiar features of this case, namely, the development of the sac anteriorly and to the left of the sternum; the fact that the sac fills up a large portion of the upper half of the left thorax; the absence of involvement of the vagus and recurrent laryngeal and of the sympathetic nerves; the peculiar and unusual murmurs; the absence of irregular and asynchronous action of the radial pulses; the absence of tracheal tugging.

An aneurism in this situation, unless markedly sacculated and the aneurismal opening from the vessel very small, would give rise to violent attacks of dyspnœa. This has always been a marked feature of the case, and especially so during the last few months. It is fair to presume that the opening into the sac has increased materially in size in this time.

The writer does not mean to urge this view of the case. It is mentioned only as being worthy of consideration. It seems more probable that the aneurism arises from the left lateral wall of the ascending arch, and has developed anteriorly and to the left, a portion of its upper part also bulging into the right pleural cavity just below the right sterno-clavicular articulation and to the right of the manubrium. Also, that the opening from the aorta into the sac was at first very small, accounting for the fact that for a long time no aneurismal bruit was heard, and that the bruit which became audible later was due to increase in the size of the opening, allowing a stronger current of blood to enter the sac. This theory is borne out by the murmur which, in the pulmonary area, was noted November 15, 1895, and which was heard most distinctly while the patient was in the sitting position, slightly bent forward, causing pressure by the sac upon the pulmonary artery.

The question of the probable origin of the aneurism is now, however, of minor importance in comparison with the actual condition of its walls and the size of the opening into the vessel from which it springs. Upon the solution of these questions should depend our decision as to the propriety of attempting to obtain coagulation of blood and the deposit of the white, laminated fibrin upon the walls of the sac by means of Macewen's method. One or more strong needles are used in this method to pierce the sac, in order to scratch and irritate the inner walls as much as possible. These needles may be allowed to remain in from one to four or five hours, or they may be withdrawn immediately. Macewen reports consolidation and cure in two cases (*Lancet*, November 22, 1890), one an aneurism of the thoracic aorta and the other of the subclavian. He also reports another case of femoral aneurism, in which the autopsy showed that the deposition of the white, laminated fibrin was greatest where the sac-irritation had been most thoroughly applied.

Weir and Page (*New York Medical Journal*, May 7, 1892) report an aneurism of the ascending aorta treated without success by this method. The needling was done three times during the first week of treatment, and as no improvement took place it was not tried again. The patient died from rupture of the sac about two months later. The autopsy showed an aneurism measuring 6½ by 8 inches and filled with a post-mortem clot. The walls were very thin and the rupture had taken place posteriorly. Nowhere was there to be seen more than a trace of fibrinous deposit and no evidences of the needling were visible.

The method is a rational one, however, and has been successful in the hands of its originator and in a few other cases. It seems to me that it is applicable only under certain conditions, and these are a thick-walled sac, a sac in which there is only a moderate amount of expansile movement, and especially and only when the opening from the vessel is small. In order to determine the latter point in the present case arrangements have been made to have a radiograph taken of the thorax. There is a chance of gaining important information by this means, especially if there are calcareous deposits and atheromatous changes in the walls of the aorta or of the sac. In addition a radiograph will show the changes which have taken place in the bony structures by reason of erosion and internal pressure. The writer proposes to make a supplementary report based upon this picture should it prove successful.

One word in regard to treatment. That which has been carrried out in this case has proved so successful that some hesitation is felt in making any change.

A short time ago it was thought advisable to stop the mercury and the potassium iodide on account of intolerance. Since then the patient has been taking only a tonic pill of iron, quinine, and strychnine. It is proposed before returning to the mercury and iodide to try the effect of calcium iodide in full doses. This remedy has recently been used with apparent success in these cases. The result will be reported at some future time.

The points of unusual interest in the case which has been related are as follows:

1. The length of time during which the aneurism has been known to exist It has been two years since the first symptoms appeared, and the patient has during the greater part of the time been able to be about on her feet, doing light work.

2. The almost entire absence of the usual pressure-symptoms. There has been no evidence of involvement of the vagus or recurrent laryngeal nerves or of the sympathetic nerve. Occasionally there has been pain radiating over the left shoulder and down the left arm, showing that the cervical plexus has been involved.

3. The remarkable result of the therapeutic measures, as shown by the decided decrease in the size of the tumor and the repair of the eroded bony structures at one time during the progress of the case. This point alone is sufficient to make the case worthy of record, and one which may be called unique in the history of thoracic aneurisms.

4. The decided benefit gained from venesection. On one occasion at least the patient's life was undoubtedly saved by the prompt opening of a vein and the withdrawal of twenty-eight ounces of blood.

5. The question of the origin of the aneurism.

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